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RE-MEDIATION OF ACADEMIC KNOWLEDGE

Reporting and Evaluating Prior Research in Archaeology Abstracts

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Abstract – The aim of the present study is to analyse a corpus of 163 research article abstracts in archaeology, an academic domain which, so far, has encountered little attention by linguists. The abstracts and the accompanying articles were published between 2007 and 2012 in the quarterly issues of three leading journals in the field, i.e. the *Journal of Archaeological Research*, the *Cambridge Archaeological Journal* and the *Journal of Archaeological Method and Theory*, which rank at the first three places in the SCOPUS database for the domain of archaeology. The study investigates the way archaeology abstracts report prior research, including the presence/absence of implicit/explicit evaluation, how archaeology authors structure this evaluation, the linguistic expressions they use, the place occupied by evaluation of prior research in the abstract's rhetorical macrostructure. Results from the present work are analysed against already existing research on other academic disciplines in order to collocate archaeology along the disciplines' continuum that includes the hard and the soft sciences at its extremes. Data show that abstracts in archaeology, as in other disciplines, tend to avoid open confrontationality, favouring criticism toward abstract entities.

Keywords: Academic writing; abstracts; evaluation; ESP; corpus linguistics.

1. Introduction

Swales (1990, p. 179) defines abstracts as “advance indicators of the content and structure of the following text”. This definition describes abstracts in academic writing primarily as concise presentations of a more complex research article (henceforth, RA) from which a reader should infer the main content of the wider text as well as the author's chosen theoretical or research background. Furthermore, the concise structure of abstracts and their role in academic writing prompt their additional function of promotional texts (on this see, for instance, Berkenkotter and Huckin 1995). Indeed, they serve to attract a reader's attention by summarising the main points of the full paper they accompany in a limited number of words, thus providing the immediate transmission of the promotional message (‘this paper is worth reading’) to the prospective reader.

The two functions of summary and promotion are accomplished through a precise structure, common to abstracts in many disciplines which has been identified as “a rhetorical macrostructure broadly corresponding to the organisation of the paper itself: Introduction-Methods-Results-Conclusion” (Hyland 2000, p. 67). Each of these sections encloses further rhetorical moves, among which a particular place is occupied by the positioning of the author's article within a particular theoretical-methodological strand. In abstracts, this strategy helps the readers collocate immediately the text in the appropriate research context but it can also be used in the function of gap-filling, i.e. giving the text a precise role with respect to what has already – or has not yet – been written on that particular topic. This implies some kind of evaluation of prior research, which might be presented as providing a

basis for future innovative work or might imply that contributions on that topic are insufficient or, worst, inadequate.

The aim of the present contribution is to analyse a corpus of 163 RA abstracts in archaeology, an academic domain which has encountered little attention by linguists as yet. The study will first investigate the way archaeology abstracts report prior research, looking in particular at the presence or absence of implicit and/or explicit evaluation, how archaeology authors structure this evaluation, the linguistic expressions they use, and the place occupied in the abstract's rhetorical macrostructure.

Results from corpus search might be useful in order to achieve a thorough understanding of the stylistic and rhetorical features of several academic written genres (besides those already studied, see following Sections); indeed, the study will also use data to collocate the discipline of archaeology within the 'hard-soft science continuum' also with respect to other academic domains in order to understand its disciplinary nature further. This kind of analysis might also have important consequences, for instance, for the teaching of the effective use of specific evaluative language to non-native scholars, novices in the field as well as to mainstream learners of academic writing in (English as a Foreign Language, EFL) courses. Finally,

2. Evaluation in RA abstracts: state of the art

Evaluation in academic research writing has been the core of numerous studies that take into consideration several perspectives, approaches and genres, but they all contribute to draw a picture of the social interactions in the academy with written genres, in particular, considered as the preferred places in which these interactions take place.

Hunston and Thompson (1999, p. 5) define evaluation as "the broad cover term for the expression of the speaker or writer's attitude or stance towards, viewpoint on, or feelings about the entities or propositions that he or she is talking about". This general definition can be applied to the case of RA abstracts and, particularly, to the parts dedicated to the evaluation of prior research since, in these sections, authors reveal their viewpoint on the contribution that previous research has given to a particular topic.

Martin and White (2005) individuate several components in their 'Appraisal Theory', which all serve to communicate a person's attitude (through the expression of feelings towards people, objects or situations) or engagement, which includes the person's evaluation of the people/objects/situation. In the case in point, the attitude of the author(s) regards mainly the feelings (attitude) s/he has as regards the place that his/her work occupies in the state of the art as well as the relevance s/he thinks that the literature available has for his/her research (engagement).

As regards the specific genre of RA abstracts, the literature is also vast but essential research background and theoretical implications for the present study come from a specific group of contributions, which investigate evaluative language in RA abstracts in several disciplines.

Particularly useful were more general contributions on academic genres as well as more specific publications. The former include Swales (1990 and 2004) that provide the fundamental model to detect the several sections present in abstracts and their function within the text's rhetorical macrostructure; Cava and Venuti (2008) were useful in their analysis of the interactive role of evaluation by investigating lexical choices in RA abstracts, whereas Pho (2008) deals with abstracts in the fields of applied linguistics and educational technology, thus providing information on abstract writing in other disciplines.

Results from the present work are contrasted against the already existing research just mentioned and particularly with results from other academic disciplines such as those presented in Salager-Meyer (1992) on medical abstracts; Bhatia (1993) on the classification of sections in the abstracts' rhetorical structure along with Swales (1990) and Hyland (2000); they provide useful information, dealing with the further investigation of the structure of the abstracts and specific linguistic and pragmatic features in several disciplines from the humanities to the hard sciences. Finally, in this last respect, Stotesbury (2003 and 2006) was also interesting in that he studies interdisciplinarity and multidisciplinary in abstracts from both the narrative and the hard sciences.

3. The present study: corpus and methodology

3.1. The corpus of RA abstracts and their Journals

The RA abstracts here investigated were published between 2007 and 2012 in the quarterly issues of three leading, peer-reviewed journals in the respective sub-fields, i.e. the *Journal of Archaeological Research* (henceforth, J1), the *Cambridge Archaeological Journal* (henceforth, J2) and the *Journal of Archaeological Method and Theory* (henceforth, J3), which rank at the first three places, respectively, in the SCOPUS database for the domain of archaeology.

J1 is published by Springer US and is indicated as having a highly international relevance. The editorial board is composed of scholars from all continents and based in prestigious universities around the world. According to the information provided on the journal's webpage, in the section entitled 'Aims and Scope', it

brings together the most recent international research summaries on a broad range of topics and geographical areas. This authoritative review journal improves access to the growing body of information and literature through the publication of original critical articles, each in a 25-40 page format. State-of-the-art studies on a selected topic cover important fieldwork and discoveries, and survey recently published literature in the featured area¹.

As for J2, it is based in the UK, being a publication for the McDonald Institute for Archaeological Research with Cambridge University Press; the editorial board is composed of scholars from the world's most prestigious universities. According to the publisher's indications:

The Cambridge Archaeological Journal is one of the leading international journals for symbolic, social and cognitive archaeology. It provides a forum for innovative, descriptive and theoretical archaeological research. Specific topics span all archaeological ideas, regions and periods. In addition to major articles and shorter notes, the Cambridge Archaeological Journal includes book reviews and review features on significant recent books. The Journal has a distinguished editorial board including scholars of international repute².

Finally, J3 – again a Springer US's publication – defines itself as “the leading journal in its field”, presenting

¹ URL: <http://www.springer.com/social+sciences/anthropology+%26+archaeology/journal/10814>. Last accessed in December 2014.

² URL: <http://journals.cambridge.org/action/displayJournal?jid=CAJ>. Last accessed in December 2014.

original articles that address method- or theory-focused issues of current archaeological interest and represent significant explorations on the cutting edge of the discipline. The journal also welcomes topical syntheses that critically assess and integrate research on a specific subject in archaeological method or theory, as well as examinations of the history of archaeology. Written by experts, the articles benefit an international audience of archaeologists, students of archaeology, and practitioners of closely related disciplines. Specific topics covered in recent issues include: the use of Nitchn construction theory in archaeology, new developments in the use of soil chemistry in archaeological interpretation, and a model for the prehistoric development of clothing. The Journal's distinguished Editorial Board includes archaeologists with worldwide archaeological knowledge (the Americas, Asia and the Pacific, Europe, and Africa), and expertise in a wide range of methodological and theoretical issues³.

The descriptions provided in the journals' webpages are of certain interest to the study of the language of promotion in academic publications (as already done in Hyland and Tse 2009). However, what is of interest to the present study is the indication of the high international ranking of the three journals as well as of the international audience of authors and prospective readers that indicates also the representativeness of the journals' writing in their discipline; this is further confirmed by the scientific quality of the contributions also with respect to their impact on the community of scholars who will read them. This aspect is of particular relevance for the present study as it allowed the inclusion of professionally-reliable publications. Indeed, a more limited significance of the journal could bear the risk of scholars gratuitously criticising or praising their colleagues without proper foundation.

3.2. Methodology

The types of evaluation found in academic writing are generally three and can be summarised using Hyland's (2000) categorization into praise, criticism and neutral acknowledgement.

As for the first type, we could say that through praise an author attributes positive assessment to another for particular achievements in research. In the case of RA abstracts, this kind of evaluation might include praise for the contribution given to the state of the art.

The second type of evaluation is criticism, or negative assessment, and it expresses dissatisfaction with the results achieved in current research or a gap in the research itself which might prevent the author from contrasting his/her results with a consistent or adequate body of research.

The last type is neutral acknowledgement, expressed through the neutral description of the studies available on a specific topic. This kind of 'evaluation-non-evaluation' does not contain evaluative elements or a judgement by the author, who employs it whenever s/he wants to merely list some of the literature.

In this context, the evaluation involves not only the mere indication of merits and flaws of the state of the art but it also implies assessment of the work of peers who belong to the same academic community. Consequently, in the case of negative criticism especially, it is interesting to analyse the author's evaluative language and see whether s/he prefers to keep negative assessments on a level of brief but constructive criticism rather than merely and openly criticizing the work of other colleagues in order to keep a sense of professional solidarity, in-group identity and continuity (see Brown and Levinson 1987; and Hyland 2008).

Hyland's (2000) three types of assessment will be used in the present paper to distinguish evaluative language found in the corpus, to identify the type that prevails and in

³ URL: <http://www.springer.com/social+sciences/anthropology+%26+archaeology/journal/10816>. Last accessed in December 2014.

which section of the abstracts. This will serve to detect possible patterns in the distribution of a particular kind of evaluation in the rhetorical structure of the abstracts themselves. As already mentioned in the Introduction, data will be compared to those from other disciplines in order to collocate archaeology along the ‘hard-soft disciplines continuum’, “with the ultimate aim of describing as thoroughly as possible the profile of academic writing in archaeology” (Cesiri, forthcoming.).

4. Abstracts in archaeology: moves and organization

Prior to the search for instances of evaluation, the abstracts in the corpus were analysed in terms of recurring patterns in their rhetorical structure, in order to identify the sections that composed them and, subsequently, the occurrence of individual instances of evaluation and where, in the abstracts, the authors prefer to collocate their assessment of previous research.

Moreover, one of the constraints to be taken into account when investigating the structure of the abstracts and the position occupied by the evaluation of prior research is the editorial policy of the journals as this might influence the decision of inserting or eliminating any mention to prior research. As for the case in point, the editorial policy on the abstracts applies to word-length only as no restrictions are given for the contents of the abstracts. Specifically, J1 and J2 provide indication of keeping abstracts to 50-100 words, while J3’s limit is up to 180 words.

In the analysis of the place occupied in the abstracts’ rhetorical macrostructure by prior research evaluation the texts were studied in terms of Swales’ (2004) framework. In his model, a revised version of his former CARS (Creating a Research Space) model (Swales 1990), he defines the ‘moves’ (and ‘steps’) as “discoursal or rhetorical unit[s] that perform a coherent communicative function in a written or spoken discourse” (Swales 2004, pp. 228-229); thus, they are the sections and sub-sections that constitute the rhetorical structure of a text and which academic authors use “to create a research space” (Swales 1990) for their work. Moves, then, perform a specific communicative function within a text.

Moreover, Bhatia (1993) describes a four-move structure usually present in RA abstracts, mirroring that of the main RA, namely: Introduction, Method, Results, Discussion/Conclusion. In this respect, Hyland (2004) classifies five rhetorical moves that he names Introduction, Purpose, Method, Product and Conclusion.

Both Bhatia’s (1993) and Hyland’s (2000) classifications provided the correct nomenclature for labelling the moves thus recognised. The RA abstracts under investigation appear to be organised around a fairly homogeneous four-move structure, as described in Bhatia (1993), but Hyland’s (2000) nomenclature and content description suits best the actual contents of the abstracts in the corpus. The four moves that occur are (1) Introduction-Purpose, (2) Method, (3) Product/Expected Outcomes and (4) Conclusion.

The following extract presents an abstract with the typical four-move structure found in the rest of the corpus. The numbers in bold type indicate the several sections into which the abstract is developed.

(1) South American archaeologists use the term landscape to analyze a broad range of relationships. Examples include intensive agriculture and political power, myth and place, and climate change and cultural development. Landscape archaeology is necessarily spatial analysis, but scholars work at different scales and use different methods. **(2-3)** This essay highlights the influence of geography, anthropology, and new methodologies on four definitions of landscape: ecological habitat, built environment, a stage for performance, and integrating subsistence and settlement. **(4)** In a number of cases, landscape archaeologists, stakeholders, and researchers

from different traditions work at different scales to meaningfully share information, clarify their differences, and compare their analyses and conclusions. (J1_12_4_dec_Walker)⁴

In this example, as it often happens in the other abstracts in the corpus, Move 2 and 3 are condensed, stating Method and Product in one long sentence. Indication of prior research is underlined: it is clear that, rather than assessing individual scholars, the author states in general terms the trends of research in the sub-field of the discipline considered in his abstract, which can be a distinct choice in avoiding an openly confrontational or excessively flattering evaluation of the theory reported.

5. Quantitative analysis

Within the four-move structure occurring in the corpus, reporting prior research appears in three cases: first, it can be found in individual, specific moves, usually in Move 1 or in Move 4 (as in the examples below, in which the moves are indicated with numbers in bold type and the text containing evaluation is underlined);

(1) Investigations of prehistoric cave art have long neglected the surrounding context: space, archaeological objects, and imprints. As a result, an integrative structural approach that analyzes cave art as part of an anthropomorphized landscape has not been available. This article draws on urban planning and the physiology of the human eye to provide an innovative archaeospatial analysis of cave sites. **(2-3)** A set of relevant features from the caves of Be'deilhac, Fontanet, and Le Portel was selected and defined (light zone, chamber type, path network, mode of movement, and available space). An analysis of the prehistoric remains in the caves allows the reconstruction of different concentrations of human activities (cave art, archaeological objects, and imprints). The projection of these concentrations onto the structured map of the caves results in four types of locations: drawing location, supply location, drawing location with substantial activities, and drawing location with consumption activities. **(4)** This approach opens new avenues for the archaeological perception of caves and their inhabitants: Upper Paleolithic humans were very familiar with caves and probably followed a master plan during their stay in the dark. (J1_11_4_dec_partoors_weniger)

(1) The origins of archaeological methods are often surprising, revealing unexpected connections between science, art and entertainment. This article explores aerial survey, a visual method commonly represented as distancing or objective. **(2)** We show how aerial survey's visualizing practices embody subjective notions of vision emerging throughout the nineteenth century. **(3)** Aerial survey smashes linear perspective, fragments time-space, and places radical doubt at the root of claims to truth. Its techniques involve hallucination, and its affinities are with stop-motion photography and cinema. **(4)** Exposing the juvenile dementia of aerial survey's infancy releases practitioners and critics from the impulse to defend or demolish its 'enlightenment' credentials. (J2_12_1_feb_wickstead_barber)

Second, it can be present in two consecutive moves, generally in Move 2 and 3 (first example from J3_10 below); third, it can be spanned throughout the text (as exemplified in the second example below, from J3_11).

(1) The article considers the importance of frontier studies in historical archaeology and discusses applicability of some of the concepts deriving from postcolonial theories for a better understanding of human relationships in the frontier zones. **(2)** The conditions of frontiers and borderlands are compared with the characteristics of the "Third Space" described by Homi Bhabha as a realm of negotiation, translation and remaking. **(3)** It is argued that concepts developed in postcolonial theories, such as "Third Space," "in betweenness" or hybridity, are

⁴ Attribution of the quotations cited in the examples reported in the paper will be given through the following codification: 'journal_year_issue_month_author'.

useful not only to address cultural and social processes in borderlands that were created by colonial empires. They are also an apt way to conceptualize relationships in frontiers that lacked colonial stigma. (4) To illustrate this point, two different historical examples of borderlands are scrutinized in this paper: the medieval frontier region that emerged between Denmark and the Northwestern Slavic area and the creation of the colonial frontier in Northeastern America through the establishment of the Praying Indian Towns. (J3_10_2_june_naum)

(1) Michael Schiffer's Behavioral Archaeology is one of several moves in mid- to late twentieth century archaeology toward actualistically based, detailed materials analysis with the aim of developing uniformitarian principles to apply to archaeological cases. Substantial parallels exists between Schiffer's agenda and its products and those of at least some zooarchaeologists and taphonomists, including use of chaîne opératoire or behavioral chain approaches and experimentation, as well as other materials analysis agendas. (4) Differences as well as similarities are explored, as are continued impediments to development of archaeology as a systematic science. (J3_11_4SI_gifford-gonzalez)

As already mentioned, Table 1 below illustrates the pattern in the distribution of evaluation. The first and third column contain the figures referring to evaluation found in individual moves; the second column shows figures for evaluation occurring in two consecutive moves, Moves 2 and 3 being the largely preferred pattern; finally, the fourth column illustrates occurrence of instances of evaluation spanned over all the four moves in the same abstract.

	Move 1			Moves 2-3			Move 4			Moves 1-4		
	J1	J2	J3	J1	J2	J3	J1	J2	J3	J1	J2	J3
<i>Positive evaluation</i>	4	3	11	7	3	5	5	1	5	6	0	1
<i>Neutral evaluation</i>	10	8	16	4	4	7	3	1	3	15	5	1
<i>Negative evaluation</i>	3	5	14	7	7	11	1	8	9	0	1	1

Table 1
Place of evaluation of prior research in the abstracts.

It is worth remarking that two of the RAs in J3 contained no abstract. The instances of evaluation were often present in more than one Move since evaluation is found to be inserted both in Move 1 and in Moves 2-3, or in Moves 2-3 and in Move 4 of the abstracts (see, e.g., the first example below from J3); in cases such as these, when evaluation was spanned over two consecutive moves, the instances were counted twice, especially in those abstracts in which the evaluative statement completed the one provided in the preceding or following section (as in the second example below, from J3).

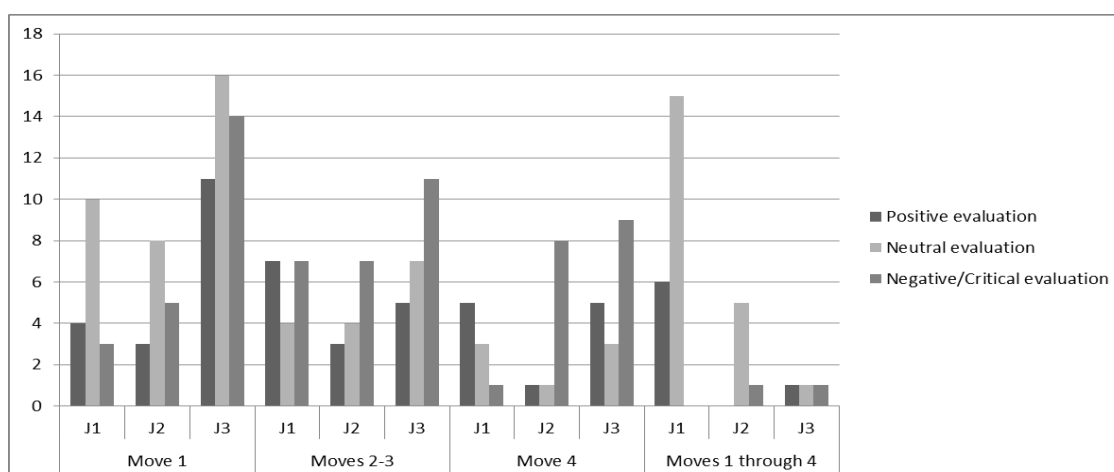
(1) This paper presents a thermal model for the prehistoric origin and development of clothing. A distinction is drawn between simple and complex forms of clothing, with broad implications for the interpretation of paleolithic technological transitions and the emergence of modern human behavior. (2-3) Physiological principles and paleoenvironmental data are harnessed to identify conditions requiring simple, loosely draped garments and the more challenging

conditions that demanded additional protection in the form of complex garment assemblages. No actual clothing survives from the Pleistocene, yet the archaeological record yields evidence for technological and other correlates of clothing—more evidence than is generally supposed. Major innovations and trends in the distributions and relative frequencies of lithic and other tool forms may reflect the changing need for portable insulation in the context of fluctuating ice age climates. Moreover, the nonthermal repercussions of complex clothing can be connected with archaeological signatures of modern human behavior, notably adornment. (4) Alternative models are less parsimonious in accounting for the geographical and temporal variability of prominent technological and other behavioral patterns in association with environmental change.

(J3_10_1_march_gilligan)

According to the quantitative data in Table 1, J1 and J2 show a more frequent use of neutral evaluation at the beginning of the abstracts; this is also valid for J3, to some extent, but it also shows evaluative language distributed across the text of the abstracts. Furthermore, in J3, negative evaluation is relatively high, especially as compared to the other two journals, and is used all over the moves in the abstracts (see figures in the fourth column Move 1-4).

The graphic representation below illustrates more clearly the distribution of evaluation of prior research in the structure of the abstracts. According to Graph 1, then, neutral evaluation clearly stands out above the other types, followed by critical assessment and negative evaluation which show a fairly even distribution in the sections of the abstracts.



Graph 1

Place occupied by evaluation in the abstracts' rhetorical structure.

As regards the distribution of the type of evaluation found in the corpus of abstracts, summarised in Table 2⁵ below, we can observe that neutral evaluation seems to prevail, followed by negative assessment, while positive evaluation ranks in last position. More specifically, in J1 neutral evaluation prevails followed by positive assessment, whilst in J2 absence of evaluation prevails followed by negative assessment, strictly outnumbering neutral evaluation; finally, in J3 neutral and negative evaluation have the same status followed by positive assessment.

⁵ In this table, figures refer to single items (adjectives, adverbials, verbs, nouns, etc., see 6.2. below) with some evaluative force. In Table 1 figures refer to the number of paragraphs from the abstracts that contain evaluation in either of the moves.

163 ArcAbs	Total	<i>J1</i>	<i>J2</i>	<i>J3</i>
<i>No evaluation</i>	35	5	24	6
<i>Positive evaluation</i>	42	18	6	18
<i>Neutral evaluation</i>	75	31	18	26
<i>Negative evaluation</i>	55	9	20	26

Table 2
Distribution of types of evaluation in the abstracts.

6. Qualitative analysis

The qualitative analysis of data provided by the corpus of archaeology abstracts addressed questions regarding the ways how archaeology authors structure their evaluation of prior research, the linguistic expressions they preferably use as well as the pragmatic implications underlying the specific linguistic choices.

6.1. Reporting prior research

In the corpus of 163 abstracts, prior research is mainly reported through reference to general entities. The following examples (emphases are added) are given to exemplify the cases of prior research referring to techniques.

The abstracts investigated, indeed, contain assessment of mainstream theoretical models (example 1, emphases added), studies on the topic/fieldwork (example 2), literature/research in general (example 3), sub-domains (example 4) and their actors as general categories, such as researchers, archaeologists, and so forth (example 5).

- (1) The recent proliferation of **LIP⁶ research** and the completion of a number of regional studies permit (J1_08_3_sept_covey);
- (2) **Research in the region** has also investigated (J1_07_4_dec_love);
- (3) **Current research** has concentrated on (J211_2_june_demarrais);
- (4) **Today's archaeology of food and diversity** is theoretically diverse but generally views food as/ thematic emphases include (J2_12_4_dec_twiss);
- (5) **Archaeologists** increasingly recognize a need to (J3_11_1_feb_clayton).

Moreover, six cases were counted of clear indication of personal names of scholars, as exemplified in (6), and one case of reference using the researchers' nationality (example 7):

- (6) Recent literature hails **George Marcus's** multi-sited ethnographic strategy as a potentially useful approach for (J3_12_2_june_ryzewksi);
- (7) **Japanese archaeologists** have exposed Jomon culture in great detail (J3_10_4_decSI_bleed_matsui).

The use of verb tenses to write about prior research varies according to the temporal line of the research reported. In the case of an assessed research that is still in progress, the present simple tense is used (as in example 8); in the case of a research that was conducted, or a

⁶ As the RA itself explains, the acronym LIP stands for Late Intermediate Period and is referred to the civilizations living in the Andes, c. 1000-1400 AD.

theory that was proposed, in the past but whose implications are still valid the present perfect is used (as in example 9).

- (8) The macroevolutionary approach in archaeology **represents the most recent example** in a long tradition of applying principles of biological evolution to the study of culture change (J1_09_01_march_zeder);
- (9) **Current research has concentrated** on individuals (and their experiences) in past societies, while group dynamics **have been neglected** (J2_11_2_june_demarrais).

Verb tenses, then, are not used to express (dis)agreement with findings as found by Salager-Meyer (1992) in RAs abstracts in the medical field.

6.2. Evaluating prior research

The choice of specific strategies and linguistic features to report prior research has pragmatic implications in the evaluation of prior research themselves. Indeed, positive assessment is used to underline the merits of specific achievements in fieldwork, of new technology applied to innovative archaeological research or approaches and of the interpretation of debated data by specific categories of peers. This is done especially through the use of specific verbs or adverbials implying an evaluation of the author (as in example 10), of ‘adjective+noun’ constructions (as in example 11) or in ‘verb+adverbial+adjective’ constructions (as in example 12).

- (10) New evidence... **has prompted** (J1_11_3_sept_gallivan), Recent methodological, technical, and cultural developments **have expanded** our understanding ... (J1_07_02_june_parkinson_duffy);
- (11) These **fundamental concepts** (J2_12_2_sept_LeeLyman), **Substantial parallels** exists between Schiffer’s agenda and its products and those of at least some zooarchaeologists and taphonomists (J3_11_4_dec_gifford-gonzalez), **major research themes** over the past decade include (J1_07_3_sep_kirch_kahn);
- (12) The regional approach **proves to be highly productive** (J1_08_3_sept_kowaleski), The naturalistic rock art of Yunnan Province **is poorly known** outside of China despite two decades of investigation by local researchers (J2_10_1_feb_taconEtAl), I suggest that Behavioral Archaeology **has made several key contributions** over the last four decades (J3_11_4_dec_plog).

The following examples (13) and (14) show that, when it comes to evaluate the merits of a discipline, especially in case of particular achievements in proposing or using some innovative or particularly productive theoretical model, the abstracts show the most explicit positive evaluation that is found in the corpus.

- (13) When cast in an evolutionary framework these ideas produce some of the most sophisticated and elegant interpretations of archaeofaunas to date (J1_07_2_june_lupo);
- (14) Archaeological predictive modelling has been used successfully for over 20 years as a decision-making tool in cultural resources management (J3_12_1_march_verhagen_whitley) ;

Negative assessment is expressed both directly and indirectly. Direct criticism passes through the use of overt claims of shortcomings in the discipline, generalising those responsible into a broad, abstract category of scholars, as in example (15) below.

- (15) Investigations of prehistoric cave art have long neglected...
(J1_11_4_dec_partoors_weniger).

Indirect criticism is conveyed through mitigation of possible FTAs, especially when traditional and well-established models are challenged, by presenting positive aspects of alternative models as in example (16):

- (16) This article takes a critical look at claims that Landscape Archaeology owes an ancestral debt to the work of early antiquarians; a belief that is in danger of becoming an orthodoxy through casual repetition (J2_11_1_feb_gillings).

In this particular example, criticism is addressed to some commonly-accepted idea about the early stages of Landscape Archaeology as a discipline. Without directly specifying that the authors believe the opposite than what is generally presumed, they prefer to direct the readers' attention on the dangers deriving in pursuing the more traditional position.

7. Discussion and Conclusion

The great deal of variation already noticed in academic abstracts (see, especially, Bhatia 1993; Kaplan *et al.* 1994; Stotesbury 2003, 2006; Hyland 2000) is also reflected in the corpus of archaeology RA abstracts here investigated, especially considering variation in the ways prior research is reported and evaluated. However, in the present case, variation does not regard the sub-fields involved, as in the case of the studies cited above, but it involves the several strategies used to express evaluation of prior research.

The present study, indeed, confirmed that for the discipline of archaeology, too, evaluation of prior research occupies a relevant place in the abstracts' rhetorical macrostructure, directly and/or indirectly indicating where the author fits his/her own work in the gaps left or results provided by the already existing literature. Neutral assessment prevails but it is followed by criticising evaluation, also used to position the author in the discipline. This feature is a further confirmation of Hyland's (2000, pp. 63-84) argumentation that, by clearly positioning themselves in the discipline-specific context, the authors (in the present case archaeologists) are "able to legitimate their work by identifying it as significant and worth reading further, and by defining themselves as competent professionals capable of making a significant contribution to its discussion" (*ibidem*, p. 84). In this regard, authors of the archaeology abstracts show a tendency in evaluating mainstream theories rather than individual scholars or research groups. This strategy functions as a mitigation of FTAs (*cf.* Brown and Levinson 1987) in case of negative evaluation, as well as to favour in-group identity and cohesion with the avoidance of openly confrontational criticism. This interpretation finds further confirmation in the use of positive assessment that serves to overtly praise merits of discipline, hence using a more explicit form of evaluation.

Whenever negative evaluation occurs it is expressed both directly and indirectly, but always directed towards mainstream theories or approaches, omitting explicit reference to individuals or clearly identifiable groups of scholars.

Finally, as anticipated at the beginning of the paper, the data shown in this study can be useful to collocate the discipline of archaeology along the ‘hard-soft sciences continuum’. Similar studies already conducted on abstracts from different disciplines (see Section 2 above) found out that “abstracts in the humanities and social sciences [...] used more evaluative attributes than those in the natural sciences, while the latter more often resorted to modality as a way of expressing authorial stance” (Stotesbury 2003, p. 339). Then, in consideration of the numerous instances of evaluation found in the present corpus, and discussed in 6.2., data in this study collocate archaeology abstracts in the field of ‘humanities and social sciences’. This result makes an interesting contrast with those from previous studies, such as Cesiri (2012 a and b), which showed that archaeology RAs repeatedly present features of domain hybridisation since they show tendencies found in both the hard and the soft sciences, especially as regards the use of hedging and boosting devices.

The marked tendency towards the humanities in the genre of archaeology abstracts, then, might be explained as a preference to present the possible implications of the research outcomes instead of mere data, leaving more space to the interpretation of the scientific community rather than letting ‘data speak for themselves’ as it is typical of the hard, most empirical sciences. Ultimately, this is congruent with the very nature of the discipline of archaeology, which combines field investigation of the past through highly technological equipment and interpretation of data through historical, artistic and socio-cultural factors.

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